HOUSE FISCAL AGENCY

Retirement Assumed Rate of Return

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Michigan Public School Employees Retirement System (MPSERS) Overview

MPSERS Basic Facts – FY 2014-15

o Retirees and Beneficiaries Receiving Benefits:	207,651
o Current Active Employees:	194,957
o Retirees receiving Health benefits:	149,741
o Pension Plan Actuarial Value of Assets:	$41.0 billion
o Pension Unfunded Actuarial Accrued Liability (UAAL):	$26.7 billion
o Pension Actuarial Funded Ratio:	60.5%
o Other Postemployment Benefits (OPEB) Costs, i.e. Health benefits:	$854.4 million
o OPEB UAAL:	$9.3 billion
o OPEB Actuarial Funded Ratio:	27.51%

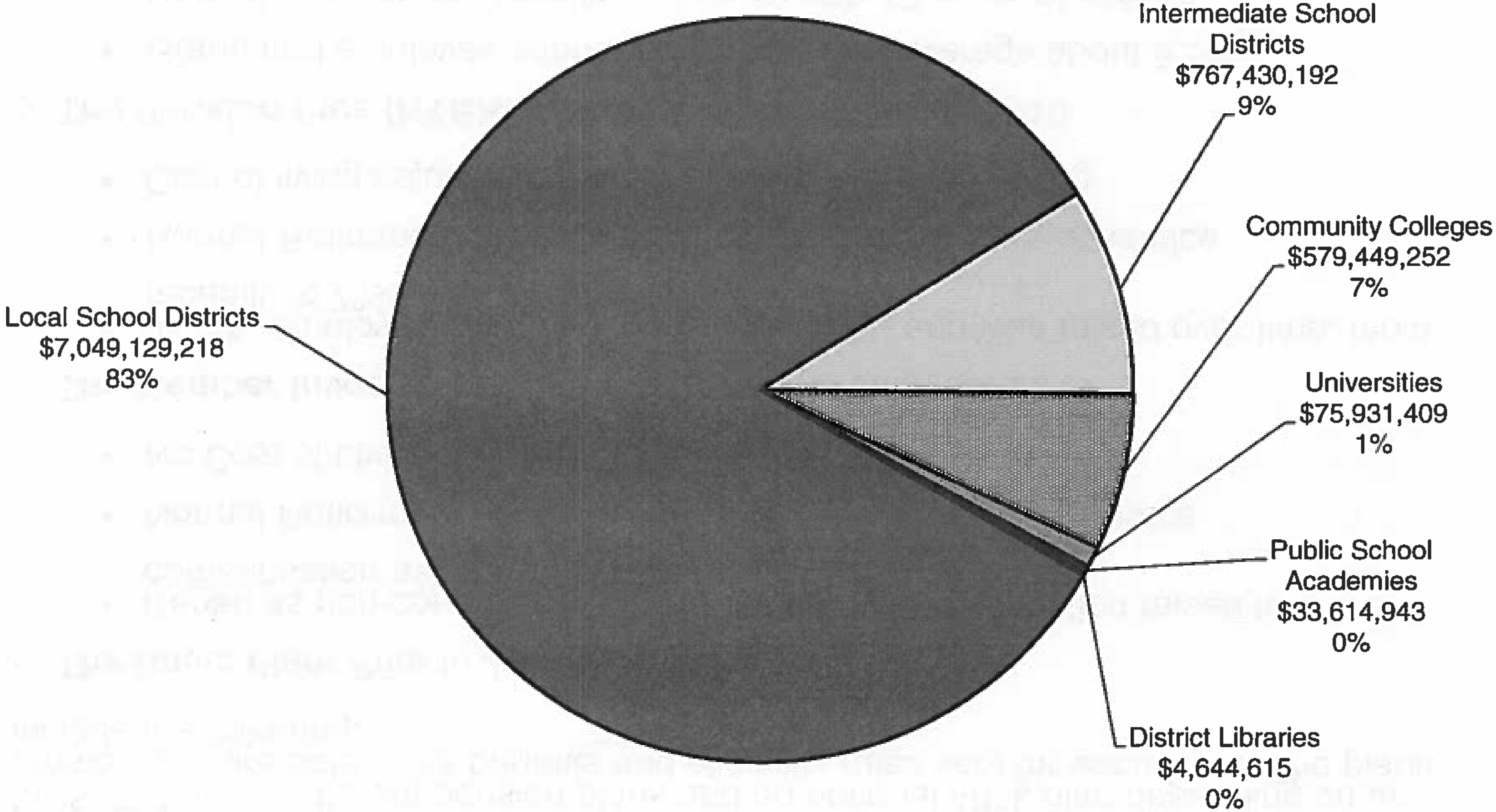
MPSERS Employers

MPSERS membership includes employees of the following:

- **544 Public School Districts** – Traditional Local Districts
- **38 Public School Academies** (PSAs or Charter Schools) – Only covers employees hired directly by the PSA as opposed to a management company.
- **56 Intermediate School Districts**
- **28 Community Colleges** – Excluding certain employees eligible for the optional retirement plan.
- **10 District Libraries** – Only if the employee was hired prior to the library separating from the school district.
- **7 Universities** – Only employees hired prior to January 1, 1996. Includes Central Michigan, Western Michigan, Eastern Michigan, Northern Michigan, Ferris State, Lake Superior State, and Michigan Technological Universities.

MPSERS Covered Payroll by Employer Type

83% of the **$8.5 billion** covered payroll for FY 2015-16 is in local school districts.



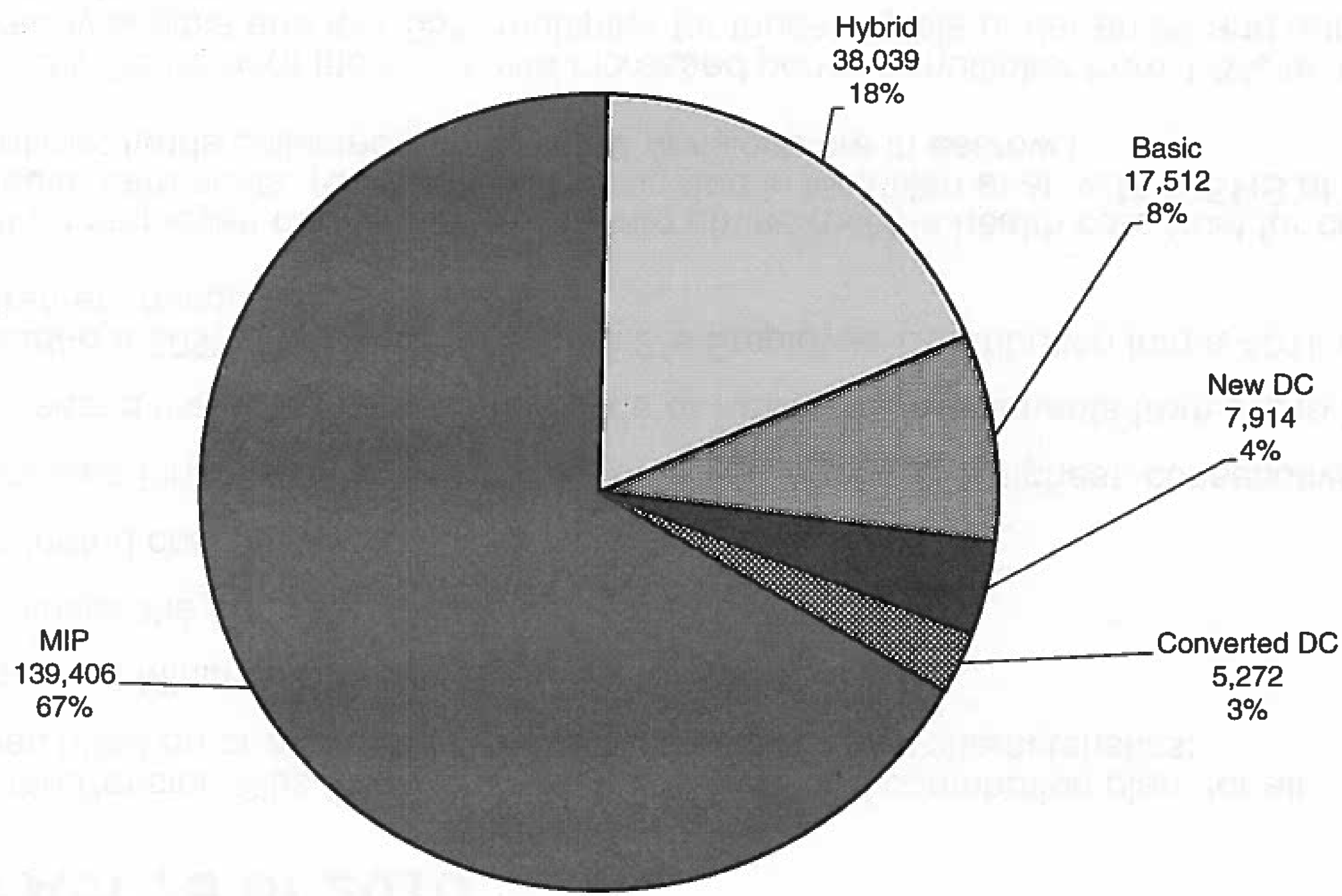
Pension Plans

MPSERS has 3 different pension plans and an optional 401k plan depending on an employee's hire date. The benefits and eligibility rules vary for each plan. The plans include the following:

- **The Basic Plan:** Prior to January 1, 1990
  - Began as non-contributory plan, but employee contribution raised to 4% of compensation as part of 2012 legislation.
  - Normal Retirement eligibility = Age 55 with 30 years of service
  - No Cost of Living Adjustments (COLA)
- **The Member Investment Plan (MIP):** Prior to June 30, 2010
  - Initially employee contribution rate was 3.0% and was raised over time, most recently to 7% in 2012 legislation.
  - Normal Retirement eligibility = Any Age with 30 years of service
  - Cost of living adjustments = 3% fixed, non-compounding
- **The Pension Plus (HYBRID) Plan:** On or After July 1, 2010
  - Graduated employee contribution rates, that average about 5.5%.
  - Normal Retirement eligibility = Age 60 with 10 years of service
  - No Cost of Living Adjustments (COLA)
- **Optional 401k or 457 Plan:** On or After Sept. 4, 2012
  - Employer contribution equal to a 50% match of an employee's contribution of up to 6% of compensation (maximum employer contribution of 3%)

MPSERS Membership by Plan

Two thirds of active employees are in the Member Investment Plan (MIP).



2010 MPSERS Retirement Changes
Public Act 75 of 2010

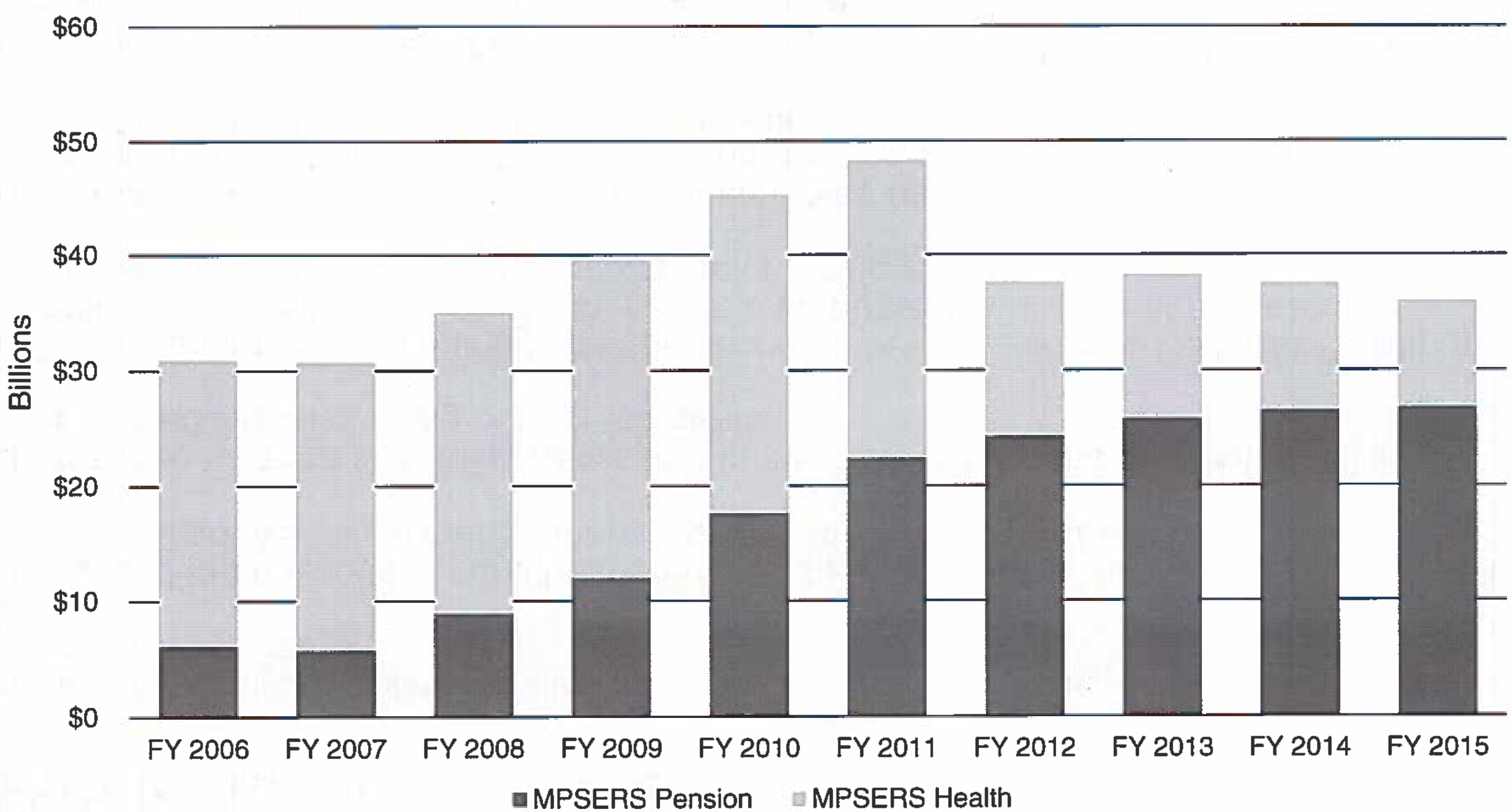
- Created the Pension Plus Plan, a hybrid pension/defined contribution plan, for all employees hired on or after **July 1, 2010** with following key characteristics:
  - Increased Minimum Retirement Age to 60.
  - Prohibited the purchase of service credit for retirement.
  - Eliminated cost of living adjustments (COLA).
  - Increased Final Average Compensation (FAC) period to 5 highest, consecutive years.
  - Decreased the Actuarial Assumed Rate of Return on Investments from 8% to 7%.
  - Included a 50% Employer Match on a 2% Employee Contribution into a 401k or 457 retirement account.
- Required an employee contribution of 3% into an irrevocable health care trust for current retiree health care costs. (Currently being litigated in McMillan et al. v. MPSERS et al. In the meantime, funds collected prior to **2012** revisions are in escrow.)
- Offered Early Retirement Incentive with increased pension multiplier from 1.5% to 1.6% for those already eligible and to 1.55% multiplier for those eligible under an 80 and out (age plus years of service).
- Required a retiree to forfeit pension benefits and health care during the period in which they return to work if they earn more than 1/3 of their final salary and are directly employed or more than $0 if contracted independently or by a third-party.

2012 MPSERS Retirement Changes
Public Act 300 of 2012

- Began prefunding retiree health care benefits rather than using former "pay-as-you-go" funding method.
- Capped the employer's contribution rate for the unfunded liability at 20.96% of payroll (with an additional estimated annual normal rate of approximately 5%.)
- Provided balance of funding necessary to meet the annual required contribution for unfunded liabilities using School Aid Funds.
- Increased employee contributions for pension (4% for Basic and 7% for MIP), with an option to opt out and choose either a reduced pension multiplier or a freeze in benefits with an employer 401k contribution going forward.
- Revised retiree health care 3% contribution to be used for individual benefits with an option to opt out of retiree health care benefits and choose an employer matching contribution of up to 2% of salary into a personal health care fund.
- Eliminated retiree health benefits for new employees after **September 4, 2012** and replaced them with an employer matching contribution of up to 2% of salary into a personal health care fund.
- Increased health care premiums for existing retirees (10% if over 65 by January 1, 2013; 20% if under 65 on January 1, 2013).
- Created an optional DC plan for new employees with a 50% employer match up to a total of 3% of salary.

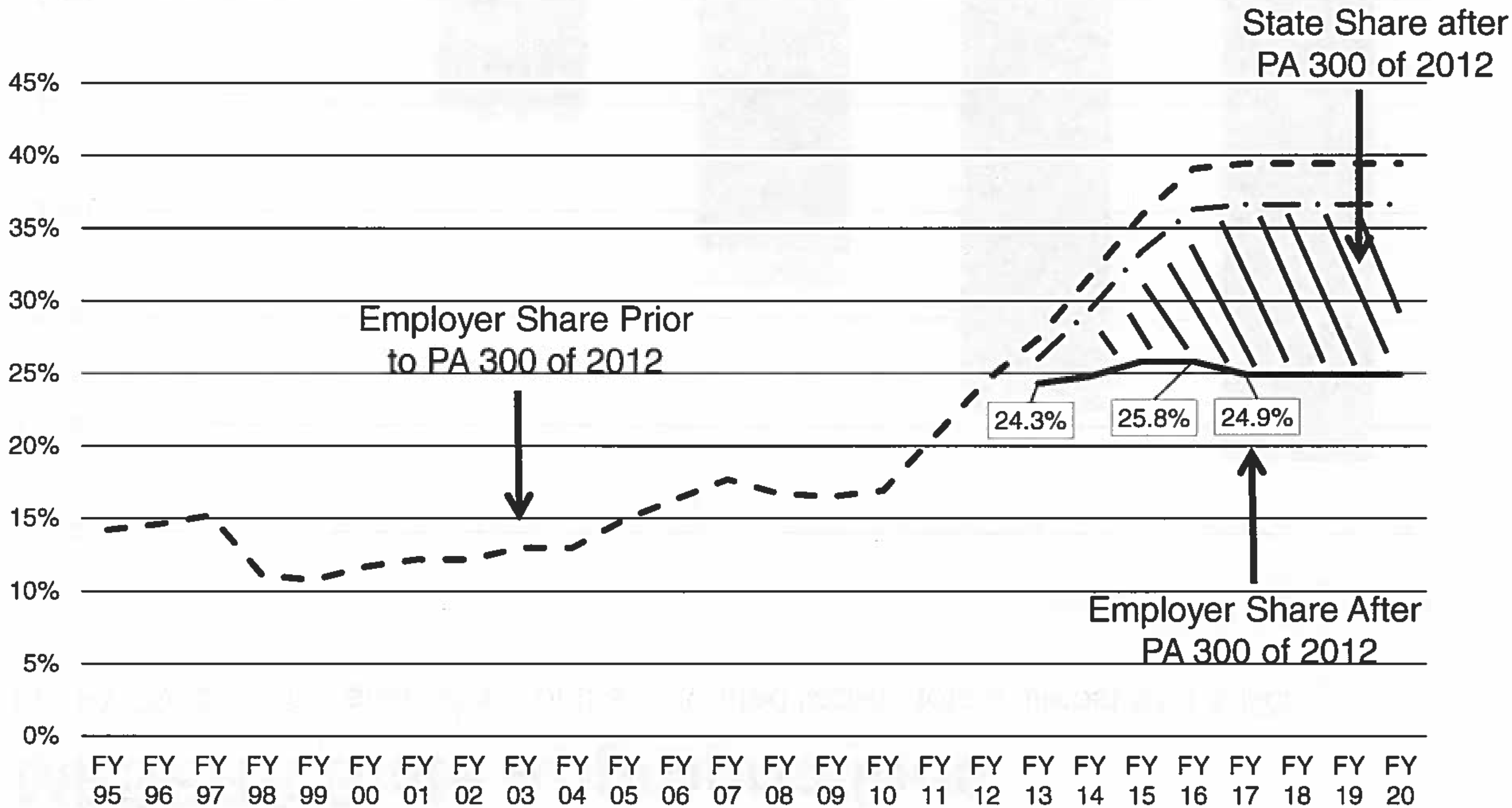
MPSERS Unfunded Liabilities

Total unfunded liabilities for the public school employee retirement system (MPSERS) have declined by $12 billion since FY 2010-11, due primarily to an accounting change related to the decision to begin prefunding retiree health benefits under PA 300.



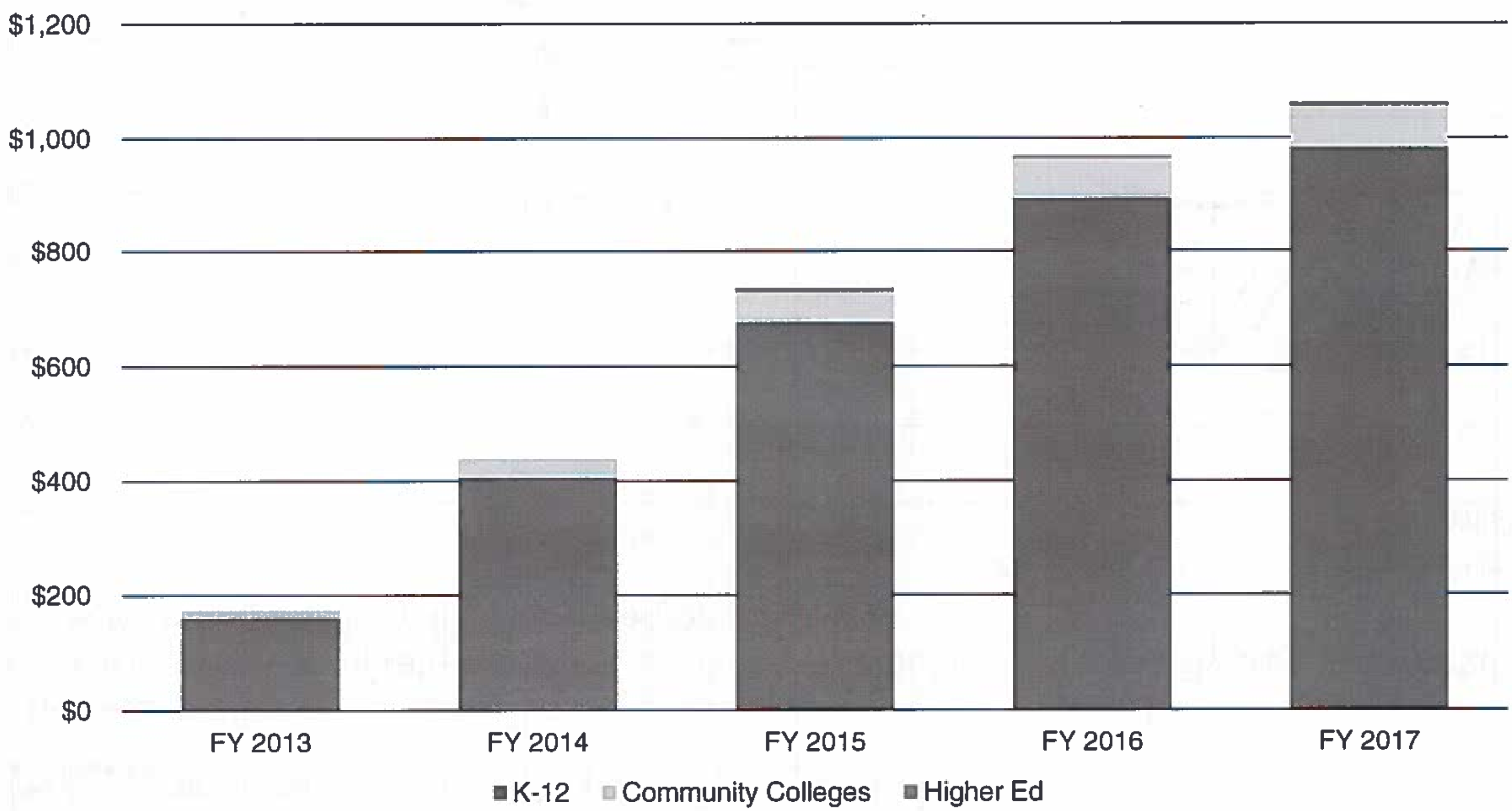
MPSERS Employer Contribution Rates History and Future Projections

The state portion of the MPSERS contribution rate is $1.1 billion in FY 2016-17. The employer contribution rate is capped at 20.96% for the unfunded liability plus the normal costs for retirement benefits newly earned each year.



MPSERS State Appropriations

For FY 2016-17, the state share of the unfunded liability totals almost $1.1 billion.



Contribution Rates

- Contribution rates are charged to all employers on an equal percentage of MPSERS payroll.

- Contribution rates are a combination of the following:

  - Normal Cost rate: Reflects the costs of the additional benefits accrued by an employee in a given year due to additional service time, calculated based on the system's actuarial assumptions.

  - Unfunded Actuarial Accrued Liability (UAAL) rate: Reflects the costs of previously earned benefits when the actuarial value of the plan assets fall short of the actuarial cost of providing those benefits.

  - Early Retirement Incentive (ERI) rate: Reflects the cost of the early retirement incentive offered in 2010, which were amortized over a 10-year period.

- The UAAL and ERI rates are applied equally across all MPSERS payroll, while the normal rate varies depending on the employee benefit group. A detailed breakdown of the contribution rates for FY 2016-17 follow on slide 13.

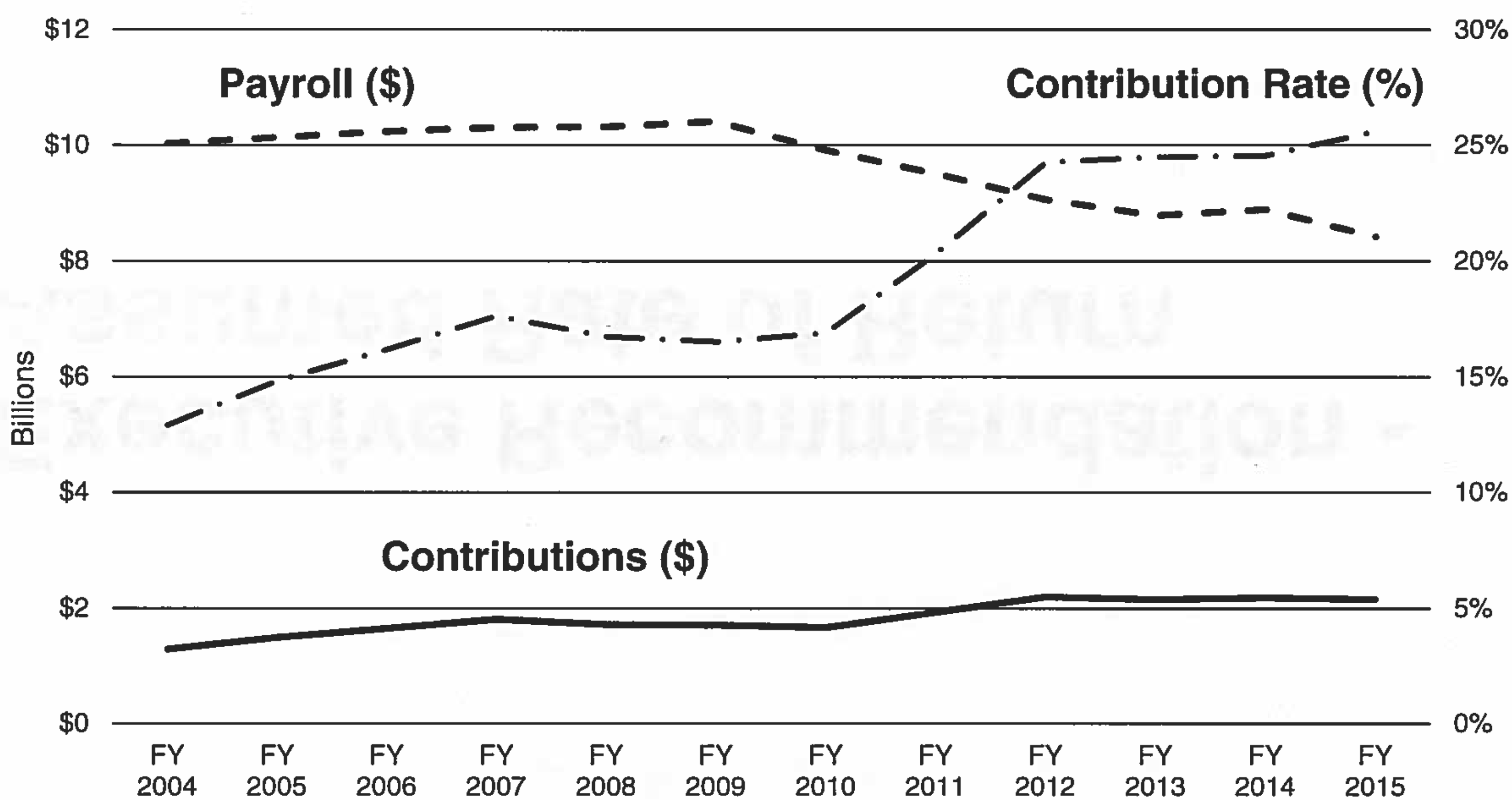
FY 2016-17 Contribution Rates
As a percent of Payroll

	Basic/MIP with Health	Pension Plus with Health	Pension Plus w/o Health	PP to DC w/o Health	Basic/MIP to DC with Health	Basic/MIP to DC w/o Health	**Basic/MIP w/o Health**
Pension/DC Contributions*							
Normal Cost	3.76	4.13	4.13	3.00	4.00	4.00	3.76
UAAL	13.91	13.91	13.91	13.91	13.91	13.91	13.91
2010 ERI	1.36	1.36	1.36	1.36	1.36	1.36	1.36
Pension Total	**19.03**	**19.40**	**19.40**	**18.27**	**19.27**	**19.27**	**19.03**
Health Contributions*							
Normal Cost	0.22	0.22	2.00	2.00	0.22	2.00	2.00
UAAL	5.69	5.69	5.69	5.69	5.69	5.69	5.69
Health Total	**5.91**	**5.91**	**7.69**	**7.69**	**5.91**	**7.69**	**7.69**
Employer Total	**24.94**	**25.31**	**27.09**	**25.96**	**25.18**	**26.96**	**26.72**
State Share	**11.70**	**11.70**	**11.70**	**11.70**	**11.70**	**11.70**	**11.70**
TOTAL	**36.64**	**37.01**	**38.79**	**37.66**	**36.88**	**38.66**	**38.42**

* Assumes 100% participation in employee DC contributions and Personal Healthcare Fund contributions.

MPSERS Payroll and Employer Contribution History

The payroll contribution rate has doubled as annual required contributions have increased and the payroll base has dropped. About one third of the rate increase is due to declining payroll.



Executive Recommendation - Assumed Rate of Return

MPSERS Investment Rate of Return History

Long-term investment revenue makes up about 80% of actual benefits paid out. Actuarial estimates are based on an 8% assumed rate of return for the Basic and MIP plans, and a 7% assumed rate of return for the Hybrid plan. If actual rates exceed assumptions, it reduce unfunded liabilities, while underperforming compared to the assumed rate increases unfunded liabilities.

Year	Rate of Return		Year	Rate of Return
1997	23.6%		2007	17.2%
1998	8.3%		2008	(12.3%)
1999	16.1%		2009	(6.1%)
2000	14.5%		2010	8.8%
2001	(11.5%)		2011	6.6%
2002	(10.5%)		2012	13.5%
2003	14.8%		2013	12.5%
2004	12.6%		2014	15.6%
2005	12.8%		2015	2.6%
2006	12.8%		2016	7.6%

Assumed Rate of Return and Unfunded Accrued Liabilities

- Actuaries use an assumed rate of return to estimate how a retirement system's assets will grow over time.
- If the assumed rate of return exceeds actual investment rates of return, assets don't grow as quickly as estimated, creating a larger unfunded accrued liability (UAL), or long-term shortfall in the system.
- An assumed rate of return that is too high understates a system's UAL, which in turn understates the annual required contributions necessary to fully fund the system.
- Lowering the assumed rate of return reduces long-term risk of UAL growth; however, it increases the UAL in the short-term as the actuarial estimate of system assets is reduced.
- Lowering the assumed rate of return increases both the UAL and Normal contribution rates, as the assumed value of assets already in the system is reduced as is the long-term value of the assets being deposited in the current year through normal rate contributions.

Executive Recommendation – Assumed Rate of Return

Proposed retirement changes included in the Executive recommendation for FY 2017-18 include:

- $100.0 million SAF to pay for the additional unfunded liability costs from lowering the assumed rate of return (AROR) for MPSERS from 8.0% to 7.5% to community colleges, universities, and school districts. (2-year phase-in)
- $53.0 million SAF to pay the additional MPSER normal cost to community colleges, universities, and school districts resulting from the change in AROR. (2-year phase-in)
- $43.4 million GF/GP ($83.7 million Gross) to pay the additional unfunded liability costs from lowering the assumed rate of return for state employees', state police, and judges' retirement systems from 8.0% to 7.5%, fully implemented in FY 18.

Executive Recommendation – Assumed Rate of Return Costs

System	FY18 Baseline Reduction	FY 18 AROR Costs	FY 18 Net Change	FY 19 AROR Costs	FY 19* Net Change
MPSERS	($126.3)	$153.0	**($26.7)**	$306.0	**$153.0**
State Employees (SERS)	($111.0)	$83.7	**($27.3)**	$83.7	--
State Police (SPRS)	--	$9.0	**$9.0**	$9.0	--
Judges (JRS)	--	$1.0	**$1.0**	$1.0	--
Military	--	$0.2	**$0.2**	$0.2	--
TOTAL	($137.3)	$246.9	**($43.8)**	$399.9	**$153.0**

Notes:
1. Baseline reductions for both MPSERS and SERS for FY 18 include better retiree health care cost experience and recent investment returns that exceeded the assumed rate. The SERS baseline costs are also reduced due to the expiration of $78 million in annual payments required to fund the 2010 early retirement incentives.
2. FY 19 costs may change as the anticipated actuarial baseline adjustments are not yet available.

For more information:

HFA Resources

http://www.house.mi.gov/hfa

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Michigan Public School Employees' Retirement System (MPSERS)

The education omnibus includes a **total of $1.2 billion** in state payments for MPSERS retirement obligations across all budgets, which is a **net increase of $26.7 million** from fiscal year 2017 levels.

- The budget continues the state payments over and above the cap for unfunded accrued liabilities (UAL) for participating entities, which is established in statute. Due to better than anticipated health care experience and more positive investment returns in recent years, the baseline costs are $126.3 million less than fiscal year 2017 levels.

- The Governor's budget also recommends funding to lower the assumed rate of investment return (AROR) for the state's retirement systems from 8% to 7.5% over 2 years for MPSERS (other retirements systems are lowered in one year). This more conservative assumption is advised by the system's actuaries, is more in line with the industry standard, and will help to ensure that available pension trust funds will be sufficient to pay the benefits that have been earned.

- Lowering the AROR requires a $100 million investment in fiscal year 2018 to cover the increased costs for the UAL. The Governor's budget also includes an additional $53 million to pay the anticipated increase in normal cost contributions, which would otherwise be paid by districts and other employees, in order to hold them harmless from these changes.

Michigan Public School Employees' Retirement System (MPSERS)
FY 2018 Executive Recommendation
Summary of State Payments by Budget (in thousands)

	K-12 Districts	Libraries	Community Colleges	Universities	MPSERS Totals
FY2017					
UAL Cap Subsidy - Existing	$ 982,200	$ 600	$ 73,200	$ 5,890	$ 1,061,890
MPSERS Offset - Existing	$ 100,000	$ -	$ 1,734	$ -	$ 101,734
Totals for FY2017	**$ 1,082,200**	**$ 600**	**$ 74,934**	**$ 5,890**	**$ 1,163,624**
FY2018					
UAL Cap Subsidy - Existing	$ 869,300	$ 600	$ 64,100	$ 1,594	$ 935,594
MPSERS Offset - Existing	$ 100,000	$ -	$ 1,734	$ -	$ 101,734
AROR - UAL - New	$ 90,830	$ 54	$ 6,705	$ 2,411	$ 100,000
AROR - Normal Cost - New	$ 48,940	$ 29	$ 3,612	$ 419	$ 53,000
Totals for FY2018	**$ 1,109,070**	**$ 683**	**$ 76,151**	**$ 4,424**	**$ 1,190,328**
Annual Change	**$ 26,870**	**$ 83**	**$ 1,217**	**$ (1,466)**	**$ 26,704**

STATE BUDGET OFFICE
FISCAL YEAR 2018 EXECUTIVE RECOMMENDATION
FEBRUARY 8, 2017

State of Michigan Defined Benefit Retirement and Retiree Healthcare Plans Assumed Rate of Return on Investments

Overview:

The Michigan Office of Retirement Systems (ORS) administers defined benefit (DB) retirement programs and related retiree healthcare plans for Michigan's state employees, public school employees (MPSERS), judges, State Police enlisted officers, and National Guard members.

Defined benefit retirement systems are built on employers and employees making contributions to the system as employees accrue years of service. Those contributions are then invested on a long-term basis. The combination of the original contributions and investment earnings are then utilized to make benefit payments when an employee retires.

A number of actuarial assumptions are utilized to determine annual required contribution amounts, including an assumption regarding the long-term rate of investment return. The current long-term assumed rate of investment return for the state's retirement systems is 8%, except that the assumption is set at 7% for the recently created public school and state police hybrid plans, which cover new employees in those categories.

Based on the advice of the state's Bureau of Investments and the retirement systems' actuary, the governor is recommending that the assumed rate of return on investments (AROR) be reduced from 8.0% to 7.5% for the state's DB pension and retiree health care plans. This change will be adopted by the retirement systems' boards and the director of the Department of Technology, Management and Budget.

System	Return Assumption
Indiana Teachers	6.75%
Illinois Teachers	7.00%
Wisconsin State	7.20%
Pennsylvania Teachers	7.25%
Ohio Teachers	7.75%
Minnesota Teachers	8.40%
***Average**	**7.39%**
****Median**	**7.23%**

This change in the investment return assumption is more in line with the industry standards based on expectations of the long-term markets. Assumed rates of return that are set too high understate retirement liabilities and undercharge for current payments at the expense of future payments. If no action is taken within the next two years, it is likely the actuary will issue a qualified valuation, which may also impact the state's credit ratings.

Benefits of lowering the assumed rate of return:

- Reduces the risk of future Unfunded Actuarial Accrued Liability (UAL) growth.
- Increases sustainability of the funds.
- Increases stability of contribution rates.
- Moves the legacy DB plans and retiree healthcare plans toward the best practice utilized by the public school and State Police hybrid plans.
- Improves the state's ability to make benefit payments and meet our promises.

Budgetary impacts of lowering the assumed rate of return:

- Because investment income plays a large role in determining the required contributions for the retirement systems, a reduction in the assumed rate of return requires a corresponding increase in employer contributions. Additional contributions now, however, will reduce the risk of even larger contribution increases in later years.

- The increased contributions are needed to pay toward both the unfunded accrued actuarial liability (UAL) legacy costs and the normal costs, which are the annual payments into the retirement system for the calculated costs of future benefits of current employees when they retire based on accruing additional service time each year.

- It is important to note that in general there is a three-year lag between the date of an actuarial valuation and the budget year that it affects. For example, fiscal year 2015 valuations for pension and retiree health (OPEB) were used in developing the fiscal year 2018 budget. Since the 2015 valuation is complete, a budgetary adjustment was made to account for the increased level of required contributions that would have been calculated assuming a lower rate of return. The lower assumed rate of return will be used by the actuary to complete the 2016 valuation later this year, directly impacting fiscal year 2019 budgetary requirements.

Executive Budget Proposal:

The fiscal year 2018 budget includes $153 million in the Education Omnibus and $93.9 million ($50.8 million general fund) in the General Omnibus, for a total of $246.9 million, to recognize the costs of lowering the assumed rate of return. The budget effectively assumes that the rate is reduced over 2 years for MPSERS and immediately in fiscal year 2018 for all other systems

For the Michigan Public School Employees' Retirement System (MPSERS), the fiscal year 2018 budget includes $100 million for increased UAL costs, which must be paid by the state, as a statutory cap limits districts' and other employers' UAL obligations to 20.96% of payroll (25.73% for universities). The governor's budget also includes an additional $53 million to pay for the anticipated increase in normal cost contributions, which would otherwise be paid by employers. Thus, districts, colleges, libraries, and universities are held harmless from this change.

For state employees, the costs resulting from the lowered assumed rate of return have been built into defined calculations applied to all appropriation line items containing employee compensation costs.

Even with this significant investment, the net year-over-year cost increase in state-level costs for all retirement systems is under $10 million. This is due to baseline savings resulting from better-than-anticipated health care experience, positive investment return experience in recent years, and the completion of paying off the costs of the most recent state employee early retirement incentive over a 5-year period.

Additional Contributions at 7.5%
(in thousands)

System	FY 2018	FY 2019
Public Schools (MPSERS)	$153,000.0	$306,000.0
State Employees (SERS)	$83,650.8	$83,650.8
State Police	$8,987.4	$8,987.4
Judges	$1,033.9	$1,033.9
Military	$224.6	$224.6
Total Additional Costs	**$246,896.7**	**$399,896.7**

Baseline Savings	
MPSERS	($126,300.0)
SERS	($111,000.0)
Total Savings	**($237,300.0)**

Net FY18 Increased Cost	**$9,596.7**